

### REMARKS

The above-identified patent application has been amended and reconsideration and reexamination are requested.

The examiner rejected claims 1, 2, 4-6, 14-17, 20 and 21 under 35 U.S.C. 102(e) as anticipated by Korhammer et al. US Patent 6,278,982.

Claim 1 as amended distinguishes over Korhammer. Claim 1 now calls for a collector facility for an electronic market. The claim recites a common interface to provide a single, common point of entry for coupling order delivery systems and quote entry systems that send quotes to the collector facility. The feature of a common interface to provide a single, common point of entry for order delivery systems and quote entry systems is not described in Korhammer. In fact Korhammer teaches away from such an arrangement.

Korhammer, describes

The data from ECN150, after conversion by the protocol converter 200, is combined with the converted data from ECN251 in a data distribution server 203. The data distribution server 203 generates a consolidated order book containing all orders from all ECN members connected to the CCS. This information is organized by distribution server 203 first by security, then by price and then by information such as volume, time or other parameters as desired. The data distribution server 203 forwards to analytic engine 204 information which is available to the public such as trade date, volume data and inside market data to calculate overall market metrics such as historical liquidity and price volatility. Such metrics are distributed to all customers 10 through subscriber server 204 since they do not depend on proprietary data. Time can be saved through a common calculation using such publicly available information to perform calculations common to all customers.

The data distribution server 203 transfers the combined ECN order book information and any relevant analytical data to the subscriber server 205 for ECN filtering, i.e., subscriber server 205 eliminates order and other information to which that customer is not entitled.

The subscriber server 205 supplies the resulting consolidated order book to an analytical engine 206 which, depending on whether the customer 10 is or is not a user or market maker, may also receive converted NASDAQ data from protocol converter 202. The analytical engine 206 reviews the information from the subscriber-filtered order book and provides metrics and analysis for customer 10. The metrics so calculated will be confined to analysis of the data available to the particular customer. Such metrics may include calculations such as price-weighted average volume and historical price spread and density metrics. While the calculations may be based, in part, on NASDAQ information the NASDAQ information is not integrated into the order book so as to not slow down the receipt of NASDAQ information to customer 10.

Claim 1 thus distinguishes by reciting a common interface to provide a single, common point of entry for coupling order delivery systems and quote entry systems that send quotes to the collector facility. Korhammer has ECNS coupled to the data distribution server but delays integration of markets (e.g., quote entry system as from Nasdaq market makers).

Claim 1 also recites ... an order routing/execution manager to provide a single point delivery of executions or routing of orders. This feature is not described by Korhammer. Rather, Korhammer also teaches away from this feature. For instance, at

The subscriber server 205 supplies the resulting consolidated order book to an analytical engine 206 which, depending on whether the customer 10 is or is not a user or market maker, may also receive converted NASDAQ data from protocol converter 202. The analytical engine 206 reviews the information from the subscriber-filtered order book and provides metrics and analysis for customer 10. The metrics so calculated will be confined to analysis of the data available to the particular customer. Such metrics may include calculations such as price-weighted average volume and historical price spread and density metrics. ....

The calculated metrics are sent by the analytic engine 206 to the subscriber server 205. The subscriber server 205 forwards the customized consolidated ECN order book and customer analytics to trading terminal 101 if the customer 10 is not a NASDAQ market maker or user (not shown). If, however, the customer is a NASDAQ market maker or user, the customer's NASDAQ information feed may also be operatively connected to terminal 101 ....

When a customer 10 wishes to place an order, he/she may use trading terminal 101 to send the order to the order server 211 which may use information from the analytical engine 206 to determine when and where to place the order, based on parameters indicated by the customer. For example, the order server 211, using information from analytical engine 206, could break up a single order, routing it to more than one ECN and/or electronic exchange.

Thus, claim 1 is distinguished over Korhammer, since Korhammer's teaching of the order server 211 does not describe an order routing/execution manager to provide a single point for delivery of executions or routing of orders in accordance with parameters of the order. Korhammer can only provide routing of orders not executions of orders as recited in claim 1. Whether an order is executed (i.e., matched with interest in the system) or delivered for execution as in Korhammer, is based on parameters of the order.

Claims 2-13 depend directly or indirectly from claim 1 and thus are allowable at least for the reasons discussed in claim 1. Further, certain of the claims add distinct features. For instance claim 2 recites that the ... interface ... couples an execution system and a negotiation system to the collector facility. Korhammer does not discuss negotiation systems.

Claim 5 recites ... a montage manager to display quotes received from the quote order manager in an aggregate montage or a current quote montage consistent with parameters specified in the multiple quotes.

Claim 7 distinguishes by reciting a process to time stamp orders/quotes ... and wherein the execution process when it executes received orders, executes received orders against all displayed size quotes at a particular price level in time priority.

Claims 8-12, which recite additional features of the execution process adds further distinctive features.

Claim 13, which includes a process to handle negotiation orders entered into the system is not suggested by the reference.

Claim 14 distinguishes since Korhammer neither describes nor suggests a montage manager to display quotes received from the quote order manager in an aggregate montage and

an attributable quote montage if the quotes are attributable ... Korhammer does not suggest the combination of an aggregate montage and quote montage, does not suggest attributable interest.

Claims 15-19 add distinctive features.

Claim 20 recites receiving multiple quotes/orders received from the interface at multiple price levels, displaying in an aggregate montage indicators of an aggregate of the quotes received and displaying those of the received quotes that represent attributable interest in a quote montage consistent with attribution parameters specified in the multiple quotes.

The features of displaying in an aggregate montage indicators of an aggregate of the quotes and displaying those of the received quotes that represent attributable interest in a quote montage are not suggested by Korhammer.

Claim 21 distinguishes since Korhammer fails to teach at least instructions to receive quotes/orders ... display quotes/orders received in an aggregate montage and/or a current quote montage consistent with parameters specified in the quotes/orders.

Newly added claims 22-29 are at least distinct for the reasons discussed in their base claims. These claims also add distinctive features. For instance claim 22 recites ... displaying quotes ... at multiple price levels in the aggregate montage.

Claim 23 recites routing or executing orders of market participants according to the nature of the participants. Claim 25 recites that executing, executes against all displayed sizes of market participants in time priority, and for any balance, executes against displayed size of non-participants. Claims 26-29 have corresponding distinguishing features.

Attached is a marked-up version of the changes being made by the current amendment.

Applicant : Stuart Serkin et al.  
Serial No. : 09/401,873  
Filed : September 23, 1999  
Page : 15

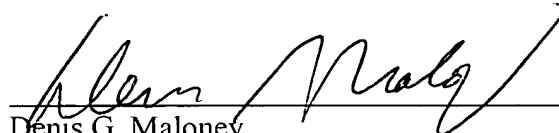
Attorney's Docket No.: 09857-029001

Applicant asks that all claims be allowed. Enclosed is a \$162 check for excess claim fees and a \$110 check for the Petition for Extension of Time fee. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: \_\_\_\_\_

10/21/02



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**Version with markings to show changes made**

**In the specification:**

The paragraph beginning at page 3, line 4 was amended as follows:

Referring to FIG. 1, an electronic market 10 is shown. The electronic market 10 includes client systems 12 that access a central quote/order collector facility 20. The client systems 12 can be broker/dealer systems 12a, electronic communication networks (ECN's) 12b, market-maker(s) [marker] system(s) 12c, and other exchanges 12d. The connections can use existing Nasdaq<sup>®</sup> protocols such as SelectNet<sup>®</sup>, Small Order Execution System<sup>®</sup> (SOES<sup>®</sup>), and so forth. The client systems 12 include a processor, memory and a storage device, e.g., a client workstation or personal computer (all not shown) that can include a client process to enter quotes/orders into the electronic market system. The quote/order collector facility 20 causes the order execution or order delivery systems (e.g., SOES<sup>®</sup> and SelectNet<sup>®</sup>) to deliver executions or orders to a market that is coupled to a clearing system 16 and a reporting system 18. It also causes delivery of executions or routing of orders to the ECN's 12c, depending on the status of the ECN, and routing of orders to other markets and exchanges 12d. The quote/order collector facility 20 is comprised of one or preferably a plurality of server computers generally denoted as 22 including a processor 22a, main memory 22b and storage 22c. The storage system 22c includes quote/order collector process 25 that is executed in memory 22b. In general, server 22 is a complex computer server, the details of which are not important to an understanding of the present invention. —

The paragraph beginning at page 3, line 28 was amended as follows:

The quote/order collector facility [25] (OCF) 20 collects pre-trade information in the form of quotes or orders. The distinction between a quote and an order depends on several factors. For example, each [a] market maker can send a proprietary quote i.e., a quote that represents its own trading interest or an agency quote that represents trading interest of a sponsored entity. If one proprietary quote is sent it could be considered one order. If one agency quote is sent it also could be considered one order. If an agency quote reflects an aggregation of

more than one agency order, however, the aggregate agency order could be considered a quote. Entering quotes are limited to registered market makers 12b and ECNs 12c and possible UTP Exchanges 12d. For any given stock, a registered market maker or ECN may directly enter a non-marketable order i.e., quote into the [system] quote/order collector facility (OCF) 20 on behalf of its customer account, or it may sponsor the direct entry of an order by its customer. All sponsored, quotes are sent to the quote/order collector facility 20 under the name of the sponsoring market maker or ECN. Every registered market maker or ECN will be permitted to submit an unlimited number of non-marketable quotes to the system 20.

The paragraph beginning at page 5, line 3 was replaced with following rewritten paragraph:

The current quote montage 204 of the window 200 without agency quotes is similar to the long existing Nasdaq display montage, whereas the current quote montage 204 with the agency quotes as depicted in FIG. 9 is similar to that shown in U.S. Patent Application Serial No. 09/208,942, filed on December 12, 1998 entitled "DUAL QUOTE MARKET SYSTEM" (pending) by Richard G. Ketchum et al. and assigned in part to the assignee of the present invention.

The paragraph beginning at page 5, line 24 was amended as follows:

The order quote collector facility 20 also includes an interface 21 that couples the order collector facility 20 to a plurality of order delivery systems. For example, the interface 21 can couple the order quote collector facility 20 to an order execution system, e.g., the Small Order Execution System<sup>®</sup> (SOES<sup>®</sup>) and to a negotiation system, e.g., SelectNet<sup>®</sup>. The interface 21 would provide access to information contained in order flow delivered via the delivery systems to a quote/order collection process 25 described in conjunction with FIG. 2B. In general, the electrical and logical functions which comprise the interface 21 can be similar to the ones currently existing in the SOES<sup>®</sup>/SelectNet<sup>®</sup> systems. The interface 21 or the process 25 would extract information from the quotes and make that information available to the quote order collector process 25. The quote/order collector process 25 extracts information and process

orders in a unified manner to allow the order collector [system] facility 20 to be a unifying point of collection of all orders which are sent to the market 10.

The paragraph beginning at page 6, line 16 was amended as follows:

Referring to FIG. 2B, the quote/order collector process ("OCP") 25 is shown. The quote/order collector process 25 provides transmission of multiple orders or quotes at multiple price levels by Quoting Market Participants to a quotation manager 26a. The quote/order manager 26a that provides a unified point of entry of quotes and orders from disparate delivery systems into the quote/order collector facility 20 to access quotes/orders displayed (as either attributable or non-attributable) in both the aggregate montage and current quote montage. The quote/order manager 26a manages multiple quotes/orders and quotes/orders at multiple price levels and uses a montage manager 26b to display (either in the Aggregate montage or in the current quote montage) the orders/quotes consistent with an order's/quote's parameters. The order collector process 25 also includes an internal execution process manager 26c to match off executions for quoting market participants at the best bid/offer. The order collector system 20 also includes an order routing/execution manager 26d provides a single point delivery of executions or routing of orders, which substantially eliminates potential for dual liability. That is, order collector process 25 will maintain the order routing and executions functionality available in the SOES<sup>®</sup> and SelectNet<sup>®</sup> systems. The order collector process 25 also includes a quote update manager 26e, a lock/cross [quote] manager 26f, and an odd lot execution manager 26g.

The paragraph beginning at page 7, line 19 was amended as follows:

The order entry process 25 determines 43 whether the received quote/order corresponds to a reserve quote. If the quote does not corresponds to a reserve quote then the quote is a displayable quote that is attributable or non-attributable. The order entry process 25 compares 44 the received quotes/orders to existing quotes/orders to determine 46 whether the price of quotes/orders fall in existing quote/order price levels 47. Any number of quote/order price levels can be accommodated although in this example, only three price levels will be displayable in the non-attributable i.e., aggregate montage. If the quote price is in a displayable price level it is a displayable quote eligible for automated execution. The order collector system 20 can be



provided with more price level depth than the three levels, e.g., a depth of 20-25 levels although only a limited number, e.g., three would be displayed at any one time.

The paragraph beginning at page 10, line 18 was amended as follows:

For example, if MMA sends system 20 all of its quotes/orders and is at the best bid of \$20 showing 4,000 shares (attributable and non-attributable), and the MMA sends OCP [OCF] 25 a 1,000 share market sell order from one its customers, OCP [OCR] 25 will examine 67a the identification of the order and if it matches the identification of the market participant who is at the best bid or offer for that security, the OCP 25 will execute 67b the order against the participant's own quote, thus matching off the order on behalf of the participant. The OCP 25 can call 67c a "request a cancel" function where a Quoting Market Participant can request cancellation of an order from system 20 before the order is actually executed. The request to cancel feature, along with the ability to leave orders with [system] OCF 20, will benefit ECNs by allowing them to participate in automatic execution and the internalized execution process 67 described above while minimizing the potential for double liability or taking on a proprietary position.

The paragraph beginning at page 11, line 23 was replaced with following rewritten paragraph:

SOES® and SelectNet® are configured to minimize the potential for dual liability, as described in copending patent application Serial No. 09/404,517 filed 9/23/1999 entitled DELIVERY SYSTEM FOR ORDERS IN AN ELECTRON MARKET which is incorporated herein by reference. In that application, to minimize the potential for dual liability (e.g., receipt of a Liability Order followed immediately by the delivery of an execution against a market maker's quote), the SelectNet® system is configured so that only a non-Liability Order could be delivered to those market participants who participate and are subject to automatic execution. To send a Liability Order to a market maker, a market participant would use the system to route the order to the next market maker in a queue. Market participants would still use SelectNet® to access quotes of ECNs that do not participate in SOES□ and to direct non-Liability Orders to a particular market maker. The SOES system is also reconfigured to an automated facility for the

handling of all market traded orders of less than a predetermined number of shares, e.g., 9,900 shares. The orders can be entered for execution against an expanded trading interest accessible through both displayed (and reserve size quotes described below).

In the claims:

Claims 3 and 6 have been cancelled.

Claims 1, 2, 4-13, and 14-21 have been amended as follows:

(Amended) 1. A collector facility for an electronic market comprises:

a[n] common interface to provide a single, common point of entry for coupling order delivery systems and quote entry systems that send quotes to the [order] collector facility; [and]

a [quote] manager process that manages quotes received from quote entry systems and from the order delivery systems; and

an order routing/execution manager to provide a single point delivery of executions or routing of orders in accordance with parameters of the order.

(Amended) 2. The [order] collector facility of claim 1 wherein the interface for coupling order delivery systems couples an execution system and a negotiation system to the [order] collector facility.

(Amended) 4. The [order] collector facility of claim 1 wherein the quote manager comprises a process to manage multiple quotes/orders received from the interface at multiple price levels.

(Amended) 5. The [order] collector facility of claim 1 further comprising:

a montage manager to display quotes received from the quote order manager in an aggregate montage or a current quote montage consistent with parameters specified in the multiple quotes.

(Amended) 7. The [order] collector facility of claim 6 wherein the order routing/execution manager further comprises:

a process to time stamp orders/quotes received by the [order execution manager] collector facility; and

wherein the [an] execution process [that] when it executes received orders, executes received orders against all displayed size quotes at a particular price level in time priority.

(Amended) 8. The [order] collector facility of claim 7 wherein the order execution manager attempts to execute against all displayed sizes of market participants in time priority, and for any balance, executes against displayed size of non-participants.

(Amended) 9. The [order] collector facility of claim 8 wherein the order execution manager for any further balance attempts to deliver orders to exchanges in time priority.

(Amended) 10. The [order] collector facility of claim 9 wherein if the order is not filled, the order execution manager will move to a next price level.

(Amended) 11. The [order] collector facility of claim 9 wherein the [auto] order execution manager will move to a next price level subsequent to expiration of a predefined delay interval in order to attempt to execute the order at the next price level.

(Amended) 12. The [order] collector facility of claim 11 wherein the interval delay will give market participants time to adjust their quotes and trading interests before the market moves through a subsequent price level.

(Amended) 13. The [order] collector facility of claim 1 further comprising:  
a process to handle negotiation orders entered into the system.

(Amended) 14. A collector facility for an electronic market comprises:  
an interface for coupling order delivery systems to the collector facility;

a quote manager that manages [multiple] quotes/orders received from the interface at multiple price levels; and

a montage manager to display quotes received from the quote order manager in an aggregate montage and [or a current] an attributable quote montage if the quotes are attributable consistent with parameters specified in the [multiple] quotes.

(Amended) 15. The [order] collector facility of claim 14 wherein the interface for coupling order delivery systems couples an execution system and a negotiation system to the order collector facility.

(Amended) 16. The [order] collector facility of claim 14 wherein the montage manager includes a process to display quotes at multiple price levels in the aggregate montage.

(Amended) 17. The [order] collector facility of claim 14 further comprising:  
an order routing/execution manager to provide a single point of execution or delivery of liability orders to market participants.

(Amended) 18. The [order] collector facility of claim 17 wherein the order routing/execution manager further comprises:  
a process to time stamp orders/quotes received by the order execution manager; and  
an execution process that executes received orders against all displayed size quotes at a particular price level in time priority.

(Amended) 19. The [order] collector facility of claim 18 wherein the order execution manager attempts to execute against all displayed sizes of market participants in time priority, and for any balance, executes against displayed size of non-participants.

(Amended) 20. A method of operating an electronic market comprises:  
interfacing a plurality of disparate order delivery systems to an order collector facility that provides a central point of access to the disparate order delivery systems;

receiving multiple quotes/orders received from the interface at multiple price levels; and  
displaying in an aggregate montage indicators of an aggregate of the quotes received [in  
an aggregate montage] ; and  
displaying those of the received quotes that represent attributable interest in [or] a  
[current] quote montage consistent with attribution parameters specified in the multiple quotes.

(Amended) 21. A computer program product residing on a computer readable media for operating an electronic market comprises instructions for causing a computer to:  
receive quotes/orders from a plurality of disparate quote entry and order delivery systems with an [order] collector facility that provides a central point of access to the disparate quote entry and order delivery systems, said [multiple] quotes/orders received at multiple price levels; and

display [in a montage] quotes/orders received in an aggregate montage and/or a current quote montage consistent with parameters specified in the [multiple] quotes/orders.